

IN THE CLAIMS:

- 1 1. (Previously Presented) A system comprising:
2 a plurality of network resources adapted to process received block-based protocol
3 data access requests; and
4 one or more virtual servers each comprising a logical partitioning of the network
5 resources to establish an instance of a multi-protocol server configured to service the
6 block-based data access requests by converting the block-based protocol requests to ap-
7 propriate file system data requests.
- 1 2. (Original) The system of claim 1 wherein the network resources comprise net-
2 work interfaces assigned to one or more network address resources.
- 1 3. (Previously Presented) The system of claim 1 further comprising storage media
2 configured to store information as units of storage resources, the units of storage re-
3 sources allocated among each of the virtual servers.
- 1 4. (Original) The system of claim 3 wherein the units of storage resources comprise
2 volumes.
- 1 5. (Original) The system of claim 3 wherein the units of storage resources comprise
2 qtrees.
- 1 6. (Previously Presented) The system of claim 3 further comprising an operating
2 system having a file system resource adapted to perform a boundary check to verify that a
3 request is allowed to access certain units of the storage resources on the storage media,
4 each virtual server allowed shared access to the file system and further adapted to create

5 virtual disks within the units of storage resources and wherein each of the virtual disks
6 associated with one or more of the virtual servers.

1 7. (Previously Presented) The system of claim 6 wherein the operating system fur-
2 ther comprises a user interface having a command set adapted to operate on virtual disks,
3 and wherein the command set executes within a context of a virtual server.

1 8. (Original) The system of claim 7 wherein the user interfaces comprises a com-
2 mand line interface (CLI) adapted to support the command set.

1 9. (Previously Presented) The system of claim 8 wherein the CLI comprises a lun
2 command adapted to perform operations to a virtual disk associated with the context of
3 the virtual server.

1 10. (Previously Presented) The system of claim 9 wherein the lun command creates a
2 logical unit number on a file system associated with the server, the logical unit number
3 being associated with the context of the virtual server.

1 11. (Original) The system of claim 8 wherein the CLI comprises an igroup command
2 that generates a set of file system primitive for binding an initiator group to one or more
3 initiator addresses and wherein the initiator group is associated with the context of the
4 virtual server.

1 12. (Original) The system of claim 1 wherein the block-based protocol comprises
2 iSCSI.

1 13. (Original) The system of claim 1 wherein the block-based protocol comprises
2 FCP.

1 14. (Previously Presented) The system of claim 1 further comprising a context data
2 structure provided to each virtual server, a context data structure including information
3 pertaining to a security domain of a virtual server and enforces controlled access to the
4 allocated and shared resources.

1 15. (Original) The system of claim 1 wherein the multi-protocol server is further
2 adapted to process data access requests in response to one or more file-level protocols.

1 16. (Previously Presented) A method for implementing a virtual server, the method
2 comprising the steps of:
3 adapting a plurality of network resources to process received block-based protocol
4 data access requests; and
5 partitioning the network resources to establish one or more virtual servers, each
6 comprising an instance of a multi-protocol server configured to service the block-based
7 data access requests by converting the block-based protocol requests to appropriate file
8 system primitives.

1 17. (Previously Presented) The method of claim 16 further comprising the step of
2 configuring storage media to store information as units of storage resources, the units of
3 storage resources allocated among each of the virtual servers.

1 18. (Original) The method of claim 17 wherein the units of storage resources com-
2 prise volumes.

1 19. (Original) The method of claim 17 wherein the units of storage resources com-
2 prise qtrees.

1 20. (Previously Presented) A computer readable medium containing executable pro-
2 gram instructions for implementing a virtual server, the executable program instructions
3 comprising program instructions for:

4 adapting a plurality of network resources to process received block-based data
5 access requests; and

6 partitioning the network resources to establish one or more virtual servers each
7 comprising an instance of a multi-protocol server configured to service the block-based
8 data access requests by converting the block-based protocol requests to appropriate file
9 system data access requests.

1 21-23 (Cancelled).

1 24. (Previously Presented) A method, comprising:

2 receiving a block-based data access request from a client;

3 forwarding the request to a virtual server;

4 converting the received block-based data access request to a file system data ac-
5 cess request;

6 servicing the file system data access request to generate a response; and

7 forwarding the generated response to the client.

1 25. (Previously Presented) A system, comprising:

2 a network interface to receive a block-based data access request from a client;

3 the network interface to forward the request to a virtual server;

4 a process to convert the received block-based data access request to a file system
5 data access request;

6 the process to service the file system data access request to generate a response;

7 and

8 the process to forward the generated response to the client.

- 1 26. (Previously Presented) A computer readable media, comprising:
2 said computer readable media containing instructions for execution on a processor
3 for the practice of a method, the method comprising:
4 receiving a block-based data access request from a client;
5 forwarding the request to a virtual server;
6 converting the received block-based data access request to a file system data ac-
7 cess request;
8 servicing the file system data access request to generate a response; and
9 forwarding the generated response to the client.